

Notice of Allowability

Application No.

09/742,761

Examiner

Li B. Zhen

Applicant(s)

RAJARAJAN ET AL.

Art Unit

2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to response filed 04/26/2007 and interviews on 6/26/2007 and 6/28/2007.
2. ☒ The allowed claim(s) is/are 4-25,27-38 and 48, now renumbered as claims 1-35.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>20070628</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

1. Claims 4-25, 27-38 and 48 are pending in the application.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 04/26/2007 has been entered.

EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with J. LaVar Oldham (Reg. No. 53,409) on June 28, 2007.

The application has been amended as follows:

- a. Replace claims 4, 6, 37, 38 and 48 with the following:

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4. In a computing environment for use in computer implemented modeling, a method of creating a model element, the method comprising:

selecting a notation from a plurality of notations, wherein each of the notations among the plurality of notations comprise a visual representation which may be used as a visual representation of a model element, and wherein each notation comprises one or more interfaces that provide information about capabilities of the notation for use in associating a notation with a semantic, but wherein each notation is independent of any semantic;

selecting a semantic, the semantic providing a meaning of a model element in a modeling environment, and the semantic being independent from any notation, the semantic having one or more interfaces for accessing information about the semantic defining requirements of a notation that is to be associated with the selected semantic; and

associating the selected notation with the selected semantic by associating the capabilities of the notation with the requirements of the semantic, where associating the selected notation with the selected semantic comprises:

validating the notation for a paradigm;

validating the semantic for the paradigm; and

validating through the notation and semantic interfaces that the notation has capabilities to meet the requirements of the semantic.

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6. The method of claim 5 wherein the paradigm server validates that the semantic object can be associated with the notation object.

37. A system, comprising:

a notation server, wherein the notation server stores a plurality of notations, wherein each of the notations among the plurality of notations comprise a visual representation which may be used as a visual representation of a model element, and wherein each notation comprises one or more interfaces that provide information about capabilities of the notation for use in associating a notation with a semantic, but wherein each notation is independent of any semantic;

a semantic server, wherein the semantic server stores one or more semantics, each semantic providing a meaning of a model element in a modeling environment, and the semantic being independent from any notation, the semantic having one or more interfaces for accessing information about the semantic defining requirements of a notation that is to be associated with the selected semantic; and

a paradigm server, the server coupled to the notation server and the semantic server connected to a modeling environment and configured to access the interfaces of the notation and the interfaces of the semantic, and further configured to enable a determination as to whether the paradigm server, notation and semantic are each compatible, and if they are compatible, to associate the notation with the semantic by associating capabilities of the notation with requirements of the semantic to provide a

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model element in the modeling environment, where associating the selected notation with the selected semantic comprises:

- validating the notation for a paradigm;

- validating the semantic for the paradigm; and

- validating through the notation and semantic interfaces that the notation has capabilities to meet the requirements of the semantic.

38. The system of claim 37 wherein the semantic server comprises a component object model class server.

48. A computer-readable storage medium having stored thereon computer executable instructions for performing the following:

- selecting a notation from a plurality of notations, wherein each of the notations among the plurality of notations comprise a visual representation which may be used as a visual representation of a model element, and wherein each notation comprises one or more interfaces that provide information about capabilities of the notation for use in associating a notation with a semantic, but wherein each notation is independent of any semantic;

- selecting a semantic, the semantic providing a meaning of a model element in a modeling environment, and the semantic being independent from any notation, the semantic having one or more interfaces for accessing information about the semantic

defining requirements of a notation that is to be associated with the selected semantic;
and

associating the selected notation with the selected semantic by associating the capabilities of the notation with the requirements of the semantic, where associating the selected notation with the selected semantic comprises:

validating the notation for a paradigm;

validating the semantic for the paradigm; and

validating through the notation and semantic interfaces that the notation has capabilities to meet the requirements of the semantic.

REASONS FOR ALLOWANCE

4. The following is an examiner's statement of reasons for allowance:

The prior art of record does not expressly teach or render obvious the invention as recited in independent claims 4, 37 and 48.

The prior art teaches a plurality of notations [Fig. 1; p. 10 of Clark], each notation comprising a visual representation [e.g. diagram, box, Fig. 1 of Clark] of a model element [Section 3.1.6, p. 22 of Clark], a plurality of semantics [Fig. 1, p. 10 of Clark], each semantic separate from each of a plurality of notations [Section 4.1, p. 24 of Clark] comprising a meaning indicative of a behavior in a modeling environment of a model element [col. 9, lines 27 – 41 of Smith], associating a notation with a semantic [p. 10 of Clark], and validating a semantic object [col. 10, lines 1 – 25 of Hemzal]. However, the prior art does not teach associating a selected notation with a selected semantic by

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validating the notation for a paradigm, validating the semantic for the paradigm and validating through the notation and semantic interfaces that the notation has capabilities to meet the requirements of the semantic.

In addition, the prior art of record does not provide a basis of evidence for asserting a motivation that one of ordinary skill level in the art at the time the invention was made would have integrated or modified the modeling system to incorporate the features of associating a selected notation with a selected semantic by validating the notation for a paradigm, validating the semantic for the paradigm and validating through the notation and semantic interfaces that the notation has capabilities to meet the requirements of the semantic as recited in the context of independent claims 4, 37 and 48.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

CONTACT INFORMATION

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768. The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on 571-272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Li B. Zhen
Examiner
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LBZ



6/28/2007